

WHAT IS CLAIMED IS:

1. A chemical reactor comprising:
  - a pair of substrates joined to each other;
  - a micro flow path provided between the pair of substrates; and
    - 5 an injection section which injects and supplies a material to cause a chemical reaction into the flow path.
2. The chemical reactor according to claim 1,
  - 10 wherein the injection section is supplied with the material from a material storage container provided outside the pair of substrates.
3. The chemical reactor according to claim 1,
  - 15 wherein the material includes an oxidizing agent, and oxygen is produced from the injected oxidizing agent in the flow path.
4. The chemical reactor according to claim 3,
  - 20 wherein oxygen produced from the oxidizing agent and carbon monoxide contained in a differently supplied fluid react in the flow path to produce carbon dioxide.
5. The chemical reactor according to claim 1,
  - 25 wherein the material includes an oxidizing agent, and is mixed with a combustion fuel in the flow path to combust the combustion fuel, thereby generating heat energy.
6. The chemical reactor according to claim 1,
  - wherein the material includes an oxidizing agent and

a combustion fuel, the combustion fuel is combusted by the oxidizing agent in the flow path to generate heat energy.

7. The chemical reactor according to claim 1,  
5 wherein

the material includes a liquid oxidizing agent.

8. The chemical reactor according to claim 7,  
wherein

10 the material includes hydrogen peroxide or its solution or a dinitrogen monoxide solution.

9. The chemical reactor according to claim 1,  
wherein the injection section includes an inkjet head.

15 10. The chemical reactor according to claim 1,  
wherein the injection section includes an injection mechanism which injects the liquid material in a nozzle in a particle form by pressure due to air bubbles that are produced in the nozzle by film boiling through heating the material in the nozzle.

20 11. The chemical reactor according to claim 1,  
further comprising a heat source for heating the flow path.

12. The chemical reactor according to claim 11,  
wherein the heat source has a thin film heater.

25 13. The chemical reactor according to claim 11,  
wherein the heat source has a thermal fluid to be supplied in a flow path provided in a surface of one of the pair of substrates which is opposite to a surface

facing the other substrate.

14. The chemical reactor according to claim 11,  
wherein the heat source has a combustion reaction  
furnace which achieves heating by combusting the  
5 combustion fuel.

15. The chemical reactor according to claim 14,  
further comprising an injection section which injects  
and supplies the combustion fuel.

16. A chemical comprising:

10 a micro reactor which causes an oxidative reaction  
in a furnace; and

an oxidizing agent supply section which supplies  
a liquid oxidizing agent into the furnace.

17. The chemical reactor according to claim 16,  
15 wherein the oxidizing agent supply section has  
an inkjet head.

18. The chemical reactor according to claim 16,  
wherein

20 the oxidizing agent includes hydrogen peroxide or  
its solution or a dinitrogen monoxide solution.